

REMARKS

Claims 1-25 and 27-31 are pending in this application. Claims 1, 7, 15, 16, 21, 24, 27 and 30 are independent claims. Claims 26 and 32 were previously canceled. Claims 1, 4, 7, 15, 24 and 30 are amended. Reconsideration of this application is respectfully requested in view of the following remarks.

Claim Objections

Claims 4 and 15-16 were objected to due to informalities. In particular, the outstanding Office Action indicated that “802.11x” be changed to “802.11” to avoid indefiniteness. Because the claims have been amended accordingly, it is respectfully requested that the outstanding rejection be withdrawn.

Claim Rejections Under 35 U.S.C. §102

Claims 1-25 and 27-31 were rejected under 35 U.S.C. Section 102(e) as being anticipated by U.S. Patent Publication No. 2003/0203743 to Sugar et al. (hereinafter “Sugar”). The rejection is respectfully traversed.

Sugar discloses a radio transceiver suitable for processing radio frequency detected by at least two antennas. The transceiver includes receiver circuits and transmitter circuits. There are switches coupled to the antennas to select whether the output of the transmit circuit or the input to the receive circuit is coupled to the antenna. The transceiver simultaneously receive and process signals detected by each antenna in order to output first and second baseband received signals that are combined appropriately to obtain a received signal. The radio transceiver may perform MIMO operations in variable bandwidth. See at least paragraphs 0025, 0027, 0028, 0032, 0033, and 0037

Applicant submits that Sugar does not teach or suggest each of the elements of the pending claims. Claims 1, 21 and 27, in part, recite “establishing a wireless communication channel between a first access point and a second access point in accordance with a communications protocol.” Claims 1, 21 and 27 also recite “monitoring transmission conditions in said wireless communications channel, including

an available data rate, to determine whether a first transmission mode or a second transmission mode should be used.” Sugar does not teach or suggest these features.

Sugar does not teach or suggest “establishing a wireless communication channel between a first access point and a second access point in accordance with a communications protocol.” (underlining added) Paragraph 0070 of Sugar discloses that multiple instances of the radio transceivers may be employed in a communication device, such as an access point. Figure 9 of Sugar shows one radio transceiver, such as an access point, can perform a 2-path MIMO communication with devices on a channel while another radio transceiver could perform 2-path MIMO communication with devices on another channel. Thus, Sugar discloses two communication channels, one between each access point/transceiver and the associated devices, but not even between the access points.

Sugar also does not teach or suggest “monitoring transmission conditions in said wireless communications channel, including an available data rate, to determine whether a first transmission mode or a second transmission mode should be used.” Because there is no teaching or suggestion in Sugar of establishing “a wireless communication channel between a first access point and a second access point,” there can be no teaching or suggestion in Sugar of “monitoring transmission conditions in said wireless communications channel,” as recited in the pending claims. Instead, paragraph 0033 of Sugar merely discloses that the radio transceiver may perform MIMO operation in a variable bandwidth. For example, in Sugar, the radio transceiver may transmit or receive a signal in a single RF channel in a radio frequency band, such as a 20 MHz 802.11 channel of the 2.4 GHz band, and it may also perform MIMO operation to transmit or receive a signal in a wider bandwidth, such as a higher data rate signal or signals that occupy up to substantially an entire frequency band, such as 80 MHz of the 2.4 GHz band. There is no teaching or suggest that the mode selected in Sugar is determined by suggest “monitoring transmission conditions in said wireless communications channel, including an available data rate,” as recited in the pending claims.

Furthermore, because there is no communications channel between two access points in Sugar, there can be no teaching or suggestion in Sugar of “performing a first set of signal processing operations at said first access point on a single received RF signal

from said second access point when said first transmission mode is used” and “performing a second set of signal processing operations, including at least one operation not included in said first set of signal processing operations, at said first access point on M independent RF received signals from said second access point when said second mode of operation is used,” as recited in the pending claims (underlining added.)

Sugar also does not teach or suggest “processing said M independent RF modulated input signals using a channel mixing matrix to extract N independent data signals transmitted by said second access point,” as recited in claims 7, 15, 24 and 30. (underlining added) Instead, Sugar merely discloses individual mixers.

Sugar also does not teach or suggest “transmitting an RF modulated signal to said second access point using a point coordination function (PCF) mode associated with said 802.11 protocol so as to maintain timing compatibility,” as recited in claim 15.

Based on the distinctions noted above, Applicant submits that Sugar does not teach or suggest each of the elements recited in claims 1, 7, 15, 21, 24, 27 and 30. Each of claims 2-6, 8-15, 16-20, 22-23, 25, 28-29 and 31 depends on claims 1, 7, 15, 21, 24, 27 and 30 and incorporates all of the elements of those claims, in addition to the further elements recited in claims 2-6, 8-15, 16-20, 22-23, 25, 28-29 and 31. Therefore, claims 2-6, 8-15, 16-20, 22-23, 25, 28-29 and 31 are also allowable because of their dependence on claims 1, 7, 15, 21, 24, 27 and 30. Therefore, Applicant respectfully requests that this rejection of claims 1-25 and 27-30 under 35 U.S.C. §102 be withdrawn.

Disclaimer

Applicant may not have presented all possible arguments or have refuted the characterizations of either the claims or the prior art as found in the Office Action. However, the lack of such arguments or refutations is not intended to act as a waiver of such arguments or as concurrence with such characterizations.

CONCLUSION

In view of the above, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 22-0185.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 27592-00275-US5 from which the undersigned is authorized to draw.

Dated: April 27, 2009

Respectfully submitted,

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